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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/688,474

10/16/2003

John M. Curotto

CURO-1001-us0

2190

32605

7590

10/12/2006

MACPHERSON KWOK CHEN & HEID LLP  
2033 GATEWAY PLACE  
SUITE 400  
SAN JOSE, CA 95110

EXAMINER

KEENAN, JAMES W

ART UNIT

PAPER NUMBER

3652

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Interview Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/688,474	CUROTTO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	James Keenan	3652	

All participants (applicant, applicant's representative, PTO personnel):

- (1) James Keenan. (3) \_\_\_\_\_  
 (2) Gideon Gimlan. (4) \_\_\_\_\_

Date of Interview: 05 October 2006.

Type: a) ☒ Telephonic b) ☐ Video Conference  
 c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.  
 If Yes, brief description: \_\_\_\_\_

Claim(s) discussed: see attached.

Identification of prior art discussed: of record.

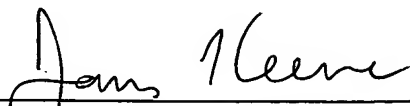
Agreement with respect to the claims f) ☒ <sup>tentatively</sup> was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Applicant submitted a proposed AF amendment (attached) which was discussed. It was tentatively agreed that it would overcome most if not all of the remaining rejections. Applicant indicated that an RCE would be filed.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

  
 Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

#### Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

#### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

#### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

**Keenan, James**

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**From:** Gideon Gimlan [ggimlan@macpherson-kwok.com]  
**Sent:** Thursday, October 05, 2006 4:17 PM  
**To:** Keenan, James  
**Subject:** RE: 10/688,474 Advance copy of claims to discuss in October

Dear Examiner Keenan,

Sorry I missed your call yesterday.

Maybe that was a good thing because it enticed me to go back and review the claims.

I realized in review of broad claim 48 that I keep forgetting about one important piece of prior art (one that as an Examiner you should hound me relentlessly on) and that is the old Curotto Can (Figs. 2C-2D --labeled as prior art in our application).

You can view a better picture of the old Curotto Can here:  
<http://www.thecurottocan.com/cur-general-info-03-pic2.html>  
(assuming they don't change it on us, it shows the front-mounted robotic arm reaching out to grab a waste container)

And if you have a lot of time, you can watch the movie of it in action by clicking on the bottom link in that web page (warning a long load time).

So anyway ... about claim 48

For purpose of differentiating over the old Curotto Can, I propose to further add to claim 48:

--and (b) means for preventing the interposed major mass portion from colliding with said vehicle.--

This additional means is intended to cover not just the cage (item 460 in Fig. 4A) but also and alternatively, any of the spacing-apart means (pins, clamps, bumpers, etc. see 432b, 432c and 402h in Fig. 4A) as described in the specification for preventing undesirable collisions. The old Curotto Can did not have any such means on the front of the can where the arm was previously mounted --to the best of my belief and knowledge.

Please let me know when might be a good time to call you.

sincerely yours,  
--Gideon

P.S. Note also Fig. 8 of Zopf 5,607,277

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Gideon Gimlan  
MacPherson Kwok Chen & Heid LLP  
2033 Gateway Place, Suite # 400  
San Jose, CA 95110  
Tel: (408) 392-9250 x213  
Fax: (408) 392-9262  
ggimlan@macpherson-kwok.com

-----Original Message-----

From: Gideon Gimlan [mailto:ggimlan@macpherson-kwok.com]  
Sent: Tuesday, September 19, 2006 12:40 PM

To: 'James.keenan@uspto.gov'  
Cc: John Curotto (Curotto Can)  
Subject: 10/688,474 Advance copy of claims to discuss next month

Dear Examiner Keenan,

Thank you for agreeing to discuss some of the 112 and 102 issues with me regarding 10/688,474.

I understand that you are back logged with work at the moment. Early October will still give us time to formulate an RCE response to the final rejection. So we will remind you then.

The attached Word document includes color coded highlighting for identifying the 112 issues. Please let me know if this format is acceptable for you.

Sincerely yours,  
--Gideon

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Gideon Gimlan  
MacPherson Kwok Chen & Heid LLP  
1762 Technology Drive, Suite # 226  
San Jose, CA 95110  
Tel: (408) 392-9250 x213  
Fax: (408) 392-9262  
ggimlan@macpherson-kwok.com

----- CONFIDENTIAL -----  
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\*\*\*\*\*

----- CONFIDENTIAL -----

Application No.: 10/688,474  
Examiner: Keenan, James  
Docket No.: CURO-1001-us0

Filing Date: October 16, 2003  
Group Art Unit: 3652  
Confirm No.: 2190

Examiner Keenan 571-272- 6925

Ask the Examiner:

Legend: **Green** = allowable subject matter

**Blue** = 112 problems

**<---** = prior art rejection, OR language we want to change

**GG note for Cl. 2:** *Propose to delete the struck through text*

**Claim 2** (*Currently Amended*): The combination of Claim 1 and further wherein:

(c) a protective cage is provided extending about at least a portion of the rearward-mounted major-mass portion of the robotic arm mechanism so as to protect the rearward-mounted major-mass portion from short dump collisions ~~of the rear part of the robotic arm mechanism~~ with the vehicle while the vehicle is lifting said fork-liftable combination.

**GG note for Cl. 12:** *Ask Examiner to clarify why highlighted text is indefinite.*

**Claim 12** (*Currently Amended*): The combination of Claim 10 and further wherein:

(a.3) the rearward-mounted major-mass portion of the robotic arm mechanism further includes a third motor for mechanically driving a **retractable lowering** of a corresponding, retractable leg for retractable engagement with a support surface below the robotic arm mechanism.

**GG note for Cl. 20:** Claim is allowable but for §112 problem. Propose "adapted to" language to overcome **112 problem**.

**Claim 20 ((Currently Amended)):** A waste collecting system comprising:

(a) a fork-liftable, waste-containerizing vessel having spaced-apart, frontmost and backmost waste-retaining surfaces, where a waste-containment space is defined between the frontmost and backmost waste-retaining surfaces;

(b) a waste-grasping robot provided adjacent to the vessel and adapted to move waste external of the vessel into the waste-containment space, said vessel and robot being **adapted to be lifted and supported by a supplied fork lift means, and said vessel and robot being** movable as a unit **when lifted and supported by a the supplied fork lift means**, said robot having one or more motor means for outputting mechanical power enabling the robot to move the waste, said robot having a retractable grasping arm for enabling the robot to move the waste, said robot having a total mass comprised at least of masses of said one or more motor means and of the retractable grasping arm; and

(c) an interface;

where a major portion of the total mass of the robot is located between said interface and the backmost waste-retaining surface, and

where the interface comprises one or more elements of the interface group consisting of:

(c.1) a power source coupling that can be coupled to a supplied power source to provide power to one or more of said motor means;

(c.2) a robot controller operatively coupled to a respective one or more of the motor means for controlling actions taken by the respective one or more of the motor means;

(c.3) disconnectable hydraulic connection means for operatively coupling a respective one or more of the motor means to a supplied hydraulic power source; and

(c.4) transport movement controlling means for controlling movement as a unit of the fork-liftable, waste-containerizing vessel and of the waste-grasping robot.

GG note for Cl. 21: Claim is allowable but for §112 problem. Propose rewriting to overcome **112 problem**:

**Claim 21** (*Previously Presented*): The waste collecting system of Claim 20 wherein said supplied fork lift means comprises a plurality of forks and attaches to a supplied waste collecting vehicle and said vehicle has a transparent operator windshield, a pair of lift arms and a pair of fork pistons for tilting corresponding forks of the fork lift means, and wherein:

*is attachable to*

when said vessel and robot ~~are supported as~~ an integrally movable unit by a the supplied waste collecting vehicle ~~that includes fork lift means and has a transparent operator windshield, a pair of lift arms and a pair of fork pistons for tilting corresponding forks of the fork lift means,~~ then the major portion of the total mass of the robot is located between said backmost waste-retaining surface and at least one of:

- (c.5) the transparent windshield through which an operator can view operations of the robot;
- (c.6) the pair of lift arms which support the weight of the vessel and robot;
- (c.7) the pair of fork pistons which are operatively coupled to tilt as a unit, the combination of the fork-liftable, waste-containerizing vessel and the waste-grasping robot; and
- (c.8) the waste collecting vehicle.



**Claim 21** (*Previously Presented*): The waste collecting system of Claim 20 wherein said supplied fork lift means comprises a plurality of forks and attaches to a supplied waste collecting vehicle and said vehicle has a transparent operator windshield, a pair of lift arms and a pair of fork pistons for tilting corresponding forks of the fork lift means, and wherein:

when said vessel and robot ~~are supported as~~ an integrally movable unit by a the supplied waste collecting vehicle ~~that includes fork lift means and has a transparent operator windshield, a pair of lift arms and a pair of fork pistons for tilting corresponding forks of the fork lift means,~~ then the major portion of the total mass of the robot is located between said backmost waste-retaining surface and at least one of:

- (c.5) the transparent windshield through which an operator can view operations of the robot;
- (c.6) the pair of lift arms which support the weight of the vessel and robot;
- (c.7) the pair of fork pistons which are operatively coupled to tilt as a unit, the combination of the fork-liftable, waste-containerizing vessel and the waste-grasping robot; and
- (c.8) the waste collecting vehicle.

**GG notes for Cl. 48:** Change "containing" to --containment--; change "distances" to --locations--; change "volume" to --total volume--

**Claim 48** (*Previously Presented*): An integrally liftable combination of a side-loading robotic arm mechanism and an intermediate refuse container, the refuse container defining a **total** refuse containment ~~volume~~ volume into which the robotic arm mechanism can deposit refuse during collections of refuse ~~from curb-side distances~~ locations spaced away from a curb-adjacent side of the intermediate refuse container, said combination being adapted? for use with a predefined? front-loading, waste collecting vehicle that can liftablely supports the combination in front of the vehicle while the vehicle moves forward during said collections of

refuse from the curb-side ~~distances,~~ locations, the integrally liftable combination being characterized by:

(a) at least a first ~~major mass~~ portion of the robotic arm mechanism being disposed rearward of the total refuse containment ~~side~~ volume into which the robotic arm mechanism can deposit refuse during said collections of refuse from the curb-side locations, distances the rearward disposed major mass portion being located so as to be interposed ~~between~~ the total refuse containment volume and the waste collecting vehicle when said combination is liftable supported in front of the vehicle .

**GG notes for Cl. 51:** *Delete side*

**Claim 51 (Previously Presented):** The integrally liftable combination of Claim 49 wherein said waste collecting vehicle includes a container-pivoting piston coupled at least to ~~a~~ the curbside one of said lift arms so as to enable pivoting of the intermediate container and wherein:

(b.1) said spacer spaces the toward-curb ~~side~~ extendable portion of the robotic arm mechanism forward of the curbside container-pivoting piston of the waste collecting vehicle so that the robotic arm mechanism can use the toward-curb ~~side~~ extendable portion to reach out towards the curb ~~side~~ without the toward-curb ~~side~~ extendable portion colliding into the curbside container-pivoting piston.

**GG note for Cl. 63:** Ask Examiner to clarify why *blue highlighted text is indefinite*

**Claim 63** (*Previously Presented*): The integrally liftable combination of Claim 48 wherein:

(a.1) said first portion of the robotic arm mechanism defines a first leg of an L-shaped configuration that ~~wraps adjacent~~ to the refuse container volume, and

(a.2) a second portion of the robotic arm mechanism defines a second leg of the L-shaped configuration, said second portion including said grasper ~~a refuse grasping part of the robotic arm mechanism.~~

**Claim 67** (*Previously Presented*): The integrally liftable combination of Claim 48 wherein:

said robotic arm mechanism detachably attaches to the intermediate refuse container ~~in modular fashion~~ such that a same robotic arm mechanism can at different times be detachably attached in ~~modular fashion~~ to intermediate refuse containers of different weights or compositions depending on types of refuse to be collected in different refuse collecting runs.

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